

Private Spaces

Negative Airflow

Sound Isolation

Self-closing Doors

Sealed Finishes

Windows for Patient Monitoring

Anterooms

Control of Dust-borne Particles



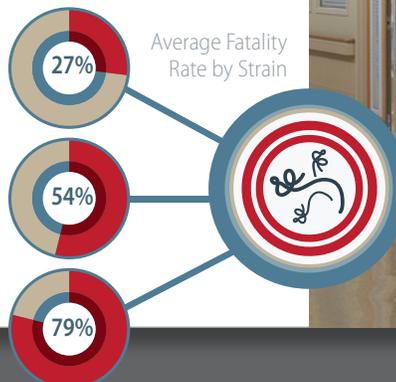
Ebola and the need for safer, more hygienic patient isolation spaces

We've all been following Ebola news.

It's clear that this infectious disease can make its way around the world and that our healthcare facilities need to make provision for its effective treatment and containment.

With widespread global travel, the spread of infectious diseases is not just limited to Ebola. Healthcare managers are increasingly planning for patient quarantine or isolation rooms that allow for diligent patient care while protecting health-care workers and the rest of the hospital. For example, here at Unicel, we've noted a dramatic increase in demand from hospitals for our hermetically-sealed louvers-within-glass units that reduce the risk of infection.

More and more healthcare facilities are building airborne infection isolation rooms (AIIRs) to better prepare for Ebola and other infectious diseases. Doctors and nurses treating those who are infected are at greatest risk of getting infected themselves. A properly designed AIIR can be a very effective infection control measure.





From an architectural design perspective, AIIRs need to consider the following:

- **Private Spaces** - Isolation rooms should be single patient rooms with private bathrooms and closed doors. The private bathroom ensures the patient will not have to leave the suite.
- **Self-closing Doors** - Isolation room doors should be equipped with self-closing devices to help maintain a contained environment.
- **Windows for Patient Monitoring** – Hermetically sealed glass units with integrated cord-free louvers or blinds provide a sealed and hygienic adjustable privacy solution that can be controlled by medical personnel. This allows personnel to discreetly monitor the patient without having to put on specialized protective gear.
- **Negative Airflow** - Rooms need to have negative airflow to provide clean and filtered air into the patient area while preventing any infectious air from flowing out of the quarantined area. Ventilation and exhaust systems are of critical importance and should adhere to federally-prescribed guidelines for environmental infection control in healthcare facilities.
- **Sealed Finishes** – To reinforce the effectiveness of negative pressure, architectural finishes should include plastered ceilings, surface-mounted lights, and gasketing

around doors, at ceiling and wall penetrations, and around any outlets. Wall and floor finishes should be of durable materials and easy to clean.

- **Control of Dust-borne Particles** - In isolation rooms the minimization of horizontal surfaces that collect dust is absolutely critical. Dust contaminated by infectious agents can build up as a reservoir that can cause an outbreak of infection, even after the infectious patient has left. Blinds or louvers that are sealed within glass eliminate dust while permitting adjustable vision control.
- **Sound Isolation** – Insulating glass units (IGUs) with integrated louvers or blinds help block unwanted noise to ensure a more tranquil patient care environment.
- **Anterooms** – Anterooms provide a protective buffer between the AIIR and the corridor. This helps prevent infectious particles from escaping into the corridor and helps maintain the isolation room's negative pressure. Anterooms should include sink and work areas, and windows comprising of hermetically sealed glass units with integrated privacy mechanisms.

For more information, please contact:
Viviane Chan
vchan@unicelarchitectural.com